

**OVERVIEW:** Research and development is a critical contributor to innovation and long-term economic growth, and the United States has a long history of being a global leader. According to a new collaborative report from The Council of State Governments and Elsevier—"America's Knowledge Economy: A State-by-State Review"—the United States published more than 536,000 publications in 2013. Predictably, states with larger populations also tended to publish more. For example, California and New York were the top two producers from 2004 to 2013. From 2004 to 2013, a big chunk of United States publications—more than one-quarter—focused on the field of medicine. Over the same period, Massachusetts and California produced the most impactful research—also called field-weighted citation impact—among all states. This brief offers a state-specific snapshot of data pulled from the report. To read the full report, visit [www.csg.org/knowledgeeconomy](http://www.csg.org/knowledgeeconomy).

## 1.31 PUBLICATIONS

PER 1,000 RESIDENTS, 2013

U.S. Average: 1.70 publications per 1,000 residents

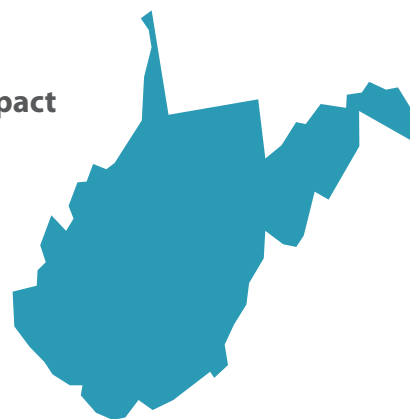
## FIELD-WEIGHTED CITATION IMPACT, 2004–13

**1.22** Cited 22% more than  
global average

### MOST IMPACTFUL RESEARCH AREA

## ENERGY

Ranked 9<sup>th</sup> among all states in terms of research impact  
and cited **29% more** than the U.S. average.



## PENNSYLVANIA

### TOP COLLABORATING STATE, 2004–13

1,895 collaborations (9.3% of all of West Virginia's publications)

### RESEARCH FROM GOVERNMENT SECTOR, 2004–13

## 17.5%

of West Virginia's total research output is from its  
government sector, the 4<sup>th</sup> highest rate among all states.

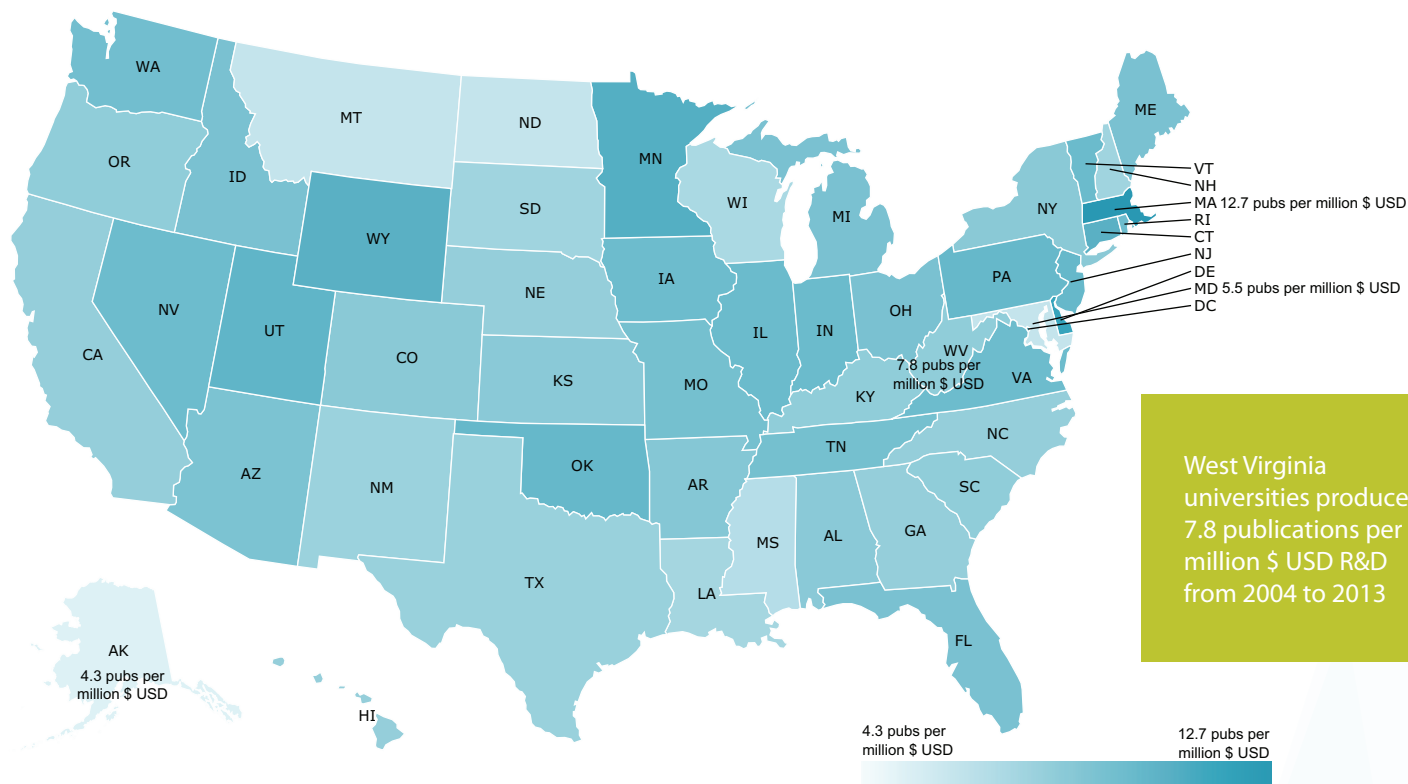
### INTERNATIONAL RESEARCH AUDIENCE

## 73.1%

of all usage of West Virginia's research come from  
outside the U.S., the 5<sup>th</sup> highest among all states.

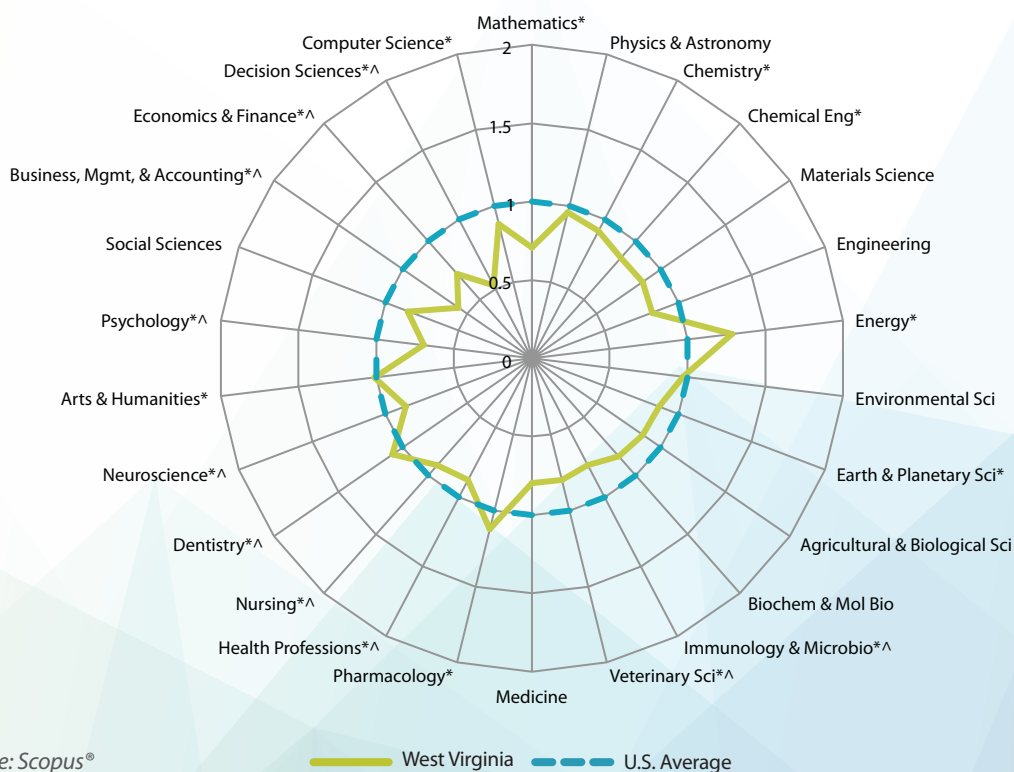
# America's Knowledge Economy: A State-by-State Review | WEST VIRGINIA

Number of academic publications per million \$ USD in higher education R&D expenditures for U.S. states, 2004–13 (in 2013 \$)



Source: Scopus® and NSF Higher Education Research and Development Survey

## Impact Across Research Fields, 2004–13



Source: Scopus®

West Virginia's research in energy is cited 29% more than the U.S. average